

ABSTRACT

A needle crystal in the form of a capsule comprising fullerene molecules such as C₆₀ and a C₆₀ platinum derivative and having a hollow portion (a fullerene shell capsule) is provided. The fullerene shell capsule which has been prepared by the liquid-liquid interface precipitation method, which comprises (1) a step in which a solution containing a first solvent dissolving fullerene therein is combined with a second solvent in which the solubility of fullerene is lower than in the above first solvent; (2) a step in which a liquid-liquid interface is formed between the above solution and the above second solvent; and (3) a step in which a carbon fine wire is precipitated on the above liquid-liquid interface, has a novel characteristic in its form and can be used as a catalyst supporting material, a raw material for a plastic composite material, a storage material for gas such as hydrogen, a catalyst for fuel cell, or the like. Further, provided are novel C₆₀-C₇₀ mixed fine wire which is fullerene fine wire comprising two components of C₆₀ and C₇₀, and a method for preparing the mixed fine wire.